

Original Research Article

An assessment of mental health programs at community health centers in north Minahasa, Indonesia

Jessica Gloria Mogi^{1*}, Gustaaf A. E. Ratag²

¹Medical Doctor, Tinoor Community Health Center, Tomohon, North Sulawesi, Indonesia

²Department of Community Medicine, Sam Ratulangi University, Manado, North Sulawesi, Indonesia

Received: 28 September 2021

Accepted: 25 October 2021

*Correspondence:

Dr. Jessica Gloria Mogi,

E-mail: mogijessica@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: The Indonesian government recognizes the importance of mental health issues as indicated by the inclusion of such issues as indicators in the national program, the Healthy Indonesian Program with Family Approach (PIS-PK). This program is enforced in community health centers (*puskesmas*) in every regency in the country. However, the continually increasing number of mental disorder cases and the intense stigmatization of people with these disorders indicate the need to re-evaluate the capacity and delivery of designated centers' mental health programs.

Methods: This community survey involved interviewing the program directors of four community health centers in north Minahasa using the WHO-AIMS 2.2 questionnaire.

Results: Very little effort has been made to improve mental health facilities and programs. Examples of aspects of health facilities that are lacking include training for health workers, the provision of psychotropic drugs, and supported employment or occupational rehabilitation.

Conclusions: Community health centers are primary healthcare facilities for society. Therefore, mental health services should be implemented as one of their main programs.

Keywords: Community health center, Community survey, Mental health service

INTRODUCTION

Mental health remains one of the most significant health problems throughout the world, including in Indonesia. According to the World Health Organization (WHO), in 2016, around 35 million people were affected by depression, with another 60 million people affected by bipolar disorder, 21 million affected by schizophrenia, and 47.5 million affected by dementia. The number of cases of mental disorders is continually increasing in Indonesia, owing to various biological, psychological, and social factors. Thus, mental disorders have increasingly significant long-term impacts on the state's burden to help people suffering from these disorders and on human productivity.¹ Data from basic health research (Riskesdas) in 2018 show that seven out of 1000 households have family members with schizophrenia or

psychosis. Furthermore, more than 19 million people over 15 years of age are affected by mood disorders. Also, it has been estimated that more than 12 million people over 15 have experienced depression.²

Owing to such high rates of mental disorders, basic mental health services have been integrated into the general health services provided by community health centers (*puskesmas*) and their networks and primary clinics. This process involves equipping general practitioners with the competence to provide mental health services. It has also led to the development of home care, service facilities outside the health sector, and community-based rehabilitation (CBR) facilities.³

Before 1990, mental health services were undertaken by inviting psychiatry specialists into community health

centers in several provinces. However, since then, mental health services have been provided by general practitioners and nurses in community health centers who have been trained on how to perform anamnesis and examine and care for patients with mental health problems. Mental health referral services are now provided at mental hospitals. Moreover, mental health services have been integrated into the general health services provided by general hospitals, primary clinics, and mental health specialists.³

Most people still think that mental health problems are only relevant to those who suffer from them--also, people often perceive those who have a mental illness as crazy. However, mental health is an integral part of one's overall health, which has a broad scope and is necessary for one's well-being, regardless of whether an individual is mentally well, at psychosocial risk, or has a serious mental disorder.³

Mental disorders and drug abuse are also associated with self-threatening behavioral problems, such as suicide. According to WHO Global Health Estimates, the suicide rate in Indonesia in the year 2016 was 3.4 per 100,000 individuals, with men being more likely than women to commit suicide.⁴ However, the number of suicide cases reported to the police was much smaller--875 cases in 2016--demonstrating how suicide is negatively regarded in the society.⁵ A primary purpose of mental health services is to develop community-based mental health efforts (UKJBM) to be carried out in community health centers. Those who are part of these efforts work with the community to prevent mental disorders within the community.⁶

In the present study, the authors visited four community health centers in the North Minahasa district to evaluate the mental health service system in that area. Evaluations were carried out using a translated version of the World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS).⁷

The north Minahasa district (often abbreviated as Minut), which contains the center of government and whose capital is Airmadidi, is located in the north Sulawesi province. This district's location is strategic, as it lies between the province's capital of Manado and the port city of Bitung. The distance between downtown Manado and Airmadidi is only about 12 km, meaning it can be reached in 30 minutes. Moreover, part of the Sam Ratulangi Airport area is located in the north Minahasa district.⁸

The north Minahasa district has a geographical area of 2,314.39 km² and a total population of 250,478, most of whom speak Manado with a local dialect. The main ethnic group in the region is the Tonsea group. The religious groups in Minahasa consist of 77.39% Protestant Christians, 14.30% Muslims, 8.14% Catholics, 0.14% Buddhists, 0.02% Hindus, and 0.01% Confucians.

The north Minahasa district consists of 10 sub-districts: Aimadidi, Dimembe, Kalawat, Kema, Kauditan, West Likupang, South Likupang, East Likupang, Talawaan, and Wori.⁸

METHODS

This preliminary study was conducted in four out of the 11 community health centers in north Minahasa. The aim of this study was to collect descriptive data on north Minahasa's mental health facilities. It is expected that the work presented here will be extended, with the current study serving as a database for future studies about mental health in north Minahasa. Data were collected in 2019; the data collected were based on the 2018 community health center profile of each center.

This study followed a qualitative design based on questionnaires and interviews. Specifically, data were collected using a brief version of the WHO-AIMS (version 2.2) questionnaire. The WHO created the WHO-AIMS questionnaire to collect information regarding the mental health systems of any given country or region. The tool is primarily used to assess mental health systems in low- to middle-income countries, though it can also be used in developed countries.⁷ We used the brief version of this questionnaire in the present study because we are investigating only one part of the mental health system.

The interviews were semi-structured, with some key questions used to outline the desired areas of information. The WHO-AIMS is divided into six domains, which, in turn, were divided into smaller facets of several items each. Every domain focuses on specific aspects of the mental health programs provided in healthcare facilities.

The first domain, "policy and legislative framework," discusses the policies, regulations, planning and funding, monitoring, and training related to the human rights associated with mental health. The second and third domains, "mental health services" and "mental health in primary health care," relate to organizational integration in mental health services, inpatient facilities, outpatient facilities, daily treatment, residential facilities, general physician training, prescribing, and referrals. The fourth domain, "human resources," has to do with the mental healthcare workforce, family associations, and patient associations. The fifth domain, "public education and links with other sectors," deals with health promotion and other professional organizations that aim to increase society's awareness of mental health and formal collaboration with other sectors, including employment and housing provision. The sixth domain, "monitoring and research," involves the monitoring of mental health service provisions and research on the topics of mental health. The most essential questions from each domain were selected to form the brief version of WHO-AIMS used in this study. The questions were asked to the program directors in each community health center.

RESULTS

A brief version of the WHO-AIMS questionnaire was used to collect information about mental health services from four puskesmas located in north Minahasa. This information was gathered to evaluate the role of community health centers in helping people with mental disorders (PWMD), improve mental health systems in general, and provide baseline data for monitoring changes. Such information is crucial, as it could lead to effective mental health plans in this district based on clear

baseline information and well-defined targets. The information provided could also be helpful for monitoring policies; providing community services; and engaging users, families, and other policyholders in improving mental health conditions.

Table 1 provided the answers to applicable items given in the interviews. Questions about mental hospitals (except for questions about referrals) and other mental facilities were omitted because they do not apply to the community health center setting.

Table 1: Questions and answers from brief version of WHO-AIMS 2.2.

Item code	Item title	Ka	Ko	Am	Ta
B1- 1.1.1	Last version of mental health policy	Y	Y	Y	Y
B2- 1.1.3	Psychotropic medicines included on the essential medicines list	N/A	N/A	N/A	N/A
B4- 1.3.1	Last version of mental health legislation	Y	Y	Y	Y
B6- 1.5.1	Mental health expenditures by the government health department	N/A	N/A	N/A	N/A
B8- 1.5.4	Free access to essential psychotropic medicines	N	N	N	N
B9- 2.1.1	Existence and functions of a national or regional mental health authority	Y	Y	Y	Y
B10- 2.1.2	Organization of mental health services in terms of catchment areas/service areas	Y	Y	Y	Y
B11- 2.2.1	Availability of mental health outpatient facilities	N/A	N/A	N/A	Y
B12- 2.2.2	Users treated through mental health outpatient facilities	68	±30	70	44
B13- 2.2.6	Children and adolescents treated through mental health outpatient facilities	3	0	1	1
B21- 2.6.6	Involuntary admissions to mental hospitals	Y	N	Y	Y
B27- 2.9.3	Availability of psychosocial interventions in mental health outpatient facilities	N	N	N	N
B29- 2.10.3	Availability of medicines in mental health outpatient facilities	N	N	N	N
B31- 3.1.2	Refresher training programmes for primary health care doctors	Y	N	N	N
B32- 3.1.5	Interaction of primary health care doctors with mental health services	Y	Y	Y	Y
B34- 3.2.3	Refresher training programmes for primary health care nurses	N	N	N	N
B35- 3.2.4	Refresher training programmes for non-doctor/non-nurse primary health care workers	N	N	N	N
B36- 3.2.6	Mental health referrals between non-physician based primary health care to a higher level of care	N	N	N	N
B37- 3.3.3	Interaction of mental health facilities with complementary/alternative/traditional practitioners	N	N	N	N
B42- 4.2.2	Refresher training for mental health staff on the rational use of psychotropic drugs	N	N	N	N
B43- 4.2.3	Refresher training for mental health staff in psychosocial (non-biological) interventions	N	N	N	N
B44- 4.4.1	User/consumer associations and mental health policies, plans or legislation	N	N	N	N
B45- 4.4.2	Family associations involvement in mental health policies, plans or legislation	N	N	N	N
B46- 4.4.8	Other NGOs involved in community and individual assistance activities	N	N	N	N
B47- 5.1.4	Professional groups targeted by specific education and awareness campaigns on mental health	N	N	N	N
B48- 5.3.1	Provision of employment for people with serious mental disorders	N	N	N	N
B50- 5.3.8	Mental health care of prisoners	N	N	N	N
B51- 5.3.9	Social welfare benefits	Y	Y	Y	Y
B52- 6.1.5	Data transmission from mental health facilities	Y	N	Y	Y
B53- 6.1.6	Report on mental health services by the government health department	Y	Y	Y	Y
B54- 6.2.2	Proportion of health research that is on mental health	N	N	N	N

Abbreviations: Ka: Kauditan community health center; Ko: Kolongan community health center; Am: Airmadidi community health center; Ta: Tatelu community health center. N: None, Y: available, N/A: not available for input.

Financial matters could not be discussed. However, the District Government Health Office funds community health centers if there is a proposal to do so.

All community health centers included in this study recognize the 2014 Indonesian Mental Health Act as the only mental health policy and legislation to be followed. The Mental Health Act discusses mental health organizations, patient services, human resources, family involvement, mental health promotion and prevention, curative and rehabilitative efforts, planning, quality improvement, and funding.⁹ Diazepam is the only medication available at the investigated centers; it is administered both as an antianxiety medication and an anticonvulsant.

The term ‘mental health authority’ refers to the government regional health office, especially the directorate of non-communicable disease and mental health prevention and control. No other organization is involved in mental health in terms of catchment/service area other than the centers. However, the centers can refer patients to the general hospital within the district, though there is only one psychiatrist available at this hospital.

Moreover, there is only one center with an outpatient clinic that is dedicated to patients with mental health-related complaints. In all other centers, patients with mental disorders are welcomed into the doctor’s office just as any other patient would be. Furthermore, there are no special outpatient services for children or adolescents. There are also no day treatment or inpatient facilities for patients with mental disorders. Physical restraint is sometimes conducted in the patients’ homes by their families, but this is not done in any of the mental health facilities. Moreover, no psychosocial interventions are available in the centers.

Only one center said they had sent their two primary care doctors to attend a training program held by the Indonesian Psychiatric Association. None of the doctors or nurses at any of the other centers had received any additional training. Only health centers are able to refer patients to a mental hospital. The interviewees stated that the centers do not interact with complementary, alternative, or traditional practitioners. The doctors and nurses who work at the centers do not work at any other mental health facilities. Also, there is no user/consumer and family association. Finally, no NGO in north Minahasa provides community or individual assistance activities.

Education and awareness campaigns are done by the centers’ health education staff. These campaigns have no specific professional population target, and the education is directed toward the general population. Only one center provided a mental-health education and awareness program for the general population within the last five years. Furthermore, no primary or secondary schools employ any mental health professionals.

No specific program for the mental health care of prisoners has been developed. Social welfare benefits are part of the government health office’s policy to register patients with severe mental disorders as part of the National Health Insurance program. As such, these patients can receive free medication from the outpatient clinics of the province’s mental hospitals. However, people with severe mental disorders are not provided with employment opportunities or housing.

Three out of the four investigated centers possessed data regarding mental disorders. Reports regarding the mental health services provided by the government health office were provided as statistics of prevalence. No research on mental health has been done within any of the four centers in the last five years. The program director of one center researched the coping mechanism of people with schizophrenia--however, this was done outside the health center as part of her master’s thesis.

DISCUSSION

The first noteworthy finding is related to the application of Indonesia’s Mental Health Act as the only legislature that the centers consider. The most notable rule is that anyone who shackles or confines--known as pasung in Indonesian--PWMD are to be fined or imprisoned.¹⁰ Stopping the practice of shackling is a goal of the Indonesian government--in 2010, the government launched the “Free Pasung Movement.” In 2011, the government signed the Convention on the Rights of Persons with Disabilities and proceeded with legislation regarding it, thus demonstrating their commitment to protect and appreciate the rights of those with disabilities, including PWMD.¹¹ Shackling, or pasung, can be done by chaining a person up, tying them up with a rope, or secluding them in a room. Despite the legislation against it, the practice continues to this day because of the persistent lack of understanding and awareness about mental health. The true number of cases of shackling is unknown because the families who commit this act hide their family members with mental illness. This is because it is widely believed in Indonesia that mental illnesses result from devil possession or inadequate devotion to religion. Thus, having a family member with a mental illness can bring shame to the entire family.¹² Even with the legislation around, there has been no report of perpetrators imprisoned for shackling PWMD.

The second noteworthy finding is that there are not enough medication options available at Indonesia’s health centers. Indonesia has an extensive list of psychotropic medications in their two national references: Daftar Obat Esensial Nasional/National List of Essential Medicines (DOEN) and National Formulary (Fornas).

The antipsychotic drugs listed in the 2015 and 2017 editions of DOEN include chlorpromazine, haloperidol, fluphenazine, clozapine, and risperidone. Antidepressants include amitriptyline, fluoxetine, and imipramine.

Anxiolytics include diazepam and lorazepam. Anti-obsessive-compulsive medications include clomipramine. Methylphenidate, a stimulant prescribed for patients with ADHD, is also included in the list. Anti-bipolar lithium and valproate are listed, as is methadone (prescribed for those with addiction). Meanwhile, nine kinds of psychotropic medications are listed in the Fornas: chlorpromazine, haloperidol, fluphenazine, risperidone, olanzapine, quetiapine, trifluoperazine, aripiprazole, and clozapine. The Fornas also describes various doses and routes of administration for these medications.¹³

However, as mentioned above, the health centers in north Minahasa provide only diazepam, a benzodiazepine. While benzodiazepines have been used to treat anxiety disorders, they are not a first-line treatment, nor are they intended to be used routinely, as their long-term use often results in dependency. Furthermore, benzodiazepines cannot be used to treat depression, which is a common comorbidity in anxiety disorder.¹⁴ Also, although benzodiazepines' sedative properties might calm down agitated patients, there is currently no evidence supporting the idea that benzodiazepines should be used as a monotherapy or in combination with antipsychotics for patients with schizophrenia.¹⁵

The unavailability of medication in community health centers is what makes it different to get treatment in urban and rural areas, which heavily depends on community health centers. The procurement of medications in community health centers still relies on stocks from central and provincial governments through e-catalogue applications.^{16,17} Purchases made through the e-catalogue require a long verification process carried out by the government's health office, and these purchases are adjusted according to the regional budget. Delays in medication provision and the unavailability of medication can be attributed to the slow shipping by distributors. Furthermore, community health centers cannot order medications outside of pre-determined periods, except in cases of outbreaks, natural disasters, or other emergencies.¹⁷

The third noteworthy finding is that no mental health services are available outside of hospitals and community health centers. For example, there are no mental health outpatient facilities, day treatment facilities, or community-based psychiatric inpatient units in Indonesia.¹⁸ According to Lora et al's analysis of the WHO mental health atlas, day treatment facilities and community-based psychiatric inpatient units are scarce in low-income countries and low- to middle-income countries. However, because of the low availability of beds in mental hospitals, introducing outpatient facilities and community-based services is the only way to increase the coverage of mental health services within a community.¹⁹

In 2017, a total of 212 patients were treated across the four outpatient facilities at the included centers. There are no mental health facilities other than the general outpatient clinics at these four centers. Most patients diagnosed with schizophrenia were referred to the hospital. Two patients (from two different community health centers) were forcibly referred as their aggression made them a threat to themselves and others.

Regarding refresher training, only two doctors from the four centers received refresher training on mental health. The specific topic of this training was not mentioned. In general, interactions with mental health services, such as mental hospitals, are rare outside of tiered referrals. In each outpatient facility, there are usually only two health workers (one doctor and one nurse) on duty at any given time. There are no psychiatrists, psychologists, or occupational therapists employed at any of the four centers. Indonesia still has a shortage of mental health specialists in general; as of the year 2017, there were only about 700 psychiatrists in the country. It is estimated that there is one psychiatrist for every 10,000 people (noting that some provinces don't have any psychiatrist); meanwhile, it is also estimated that around 24,000 psychiatrists are required to serve the population of Indonesia.³

Moreover, there are no user/consumer and family associations of any kind in the district, let alone associations that impact policy. Caregiver or service user involvement in mental health care is still a new concept in low- and middle-income countries. These people are often overlooked by healthcare providers; hence, healthcare providers do not consult with service users or their families when deciding what treatment plans to implement.²⁰

Organizations supporting PWMD are present in only 49% of low-income countries (compared to the 83% in high-income countries). Similar percentages are seen regarding family organizations (39% versus 80%).²⁰ The stigma and poverty associated with mental health disorders are substantial barriers that hinder service users and their families from being involved in decision-making. Discriminatory attitudes often make a patient's family members feel disempowered; thus, they do not realize they can voice their opinions.²⁰

Meanwhile, poverty decreases patients' and their families' ability to fulfill their primary needs. Hence, they will not consider getting treatment or being involved in it.²⁰ The involvement of service users and their families is promoted by the WHO to provide treatments that better suit the needs of each individual patient, facilitate recovery, and reduce the stigma attached to mental disorders.²¹

According to previous studies, considering service users' and families' opinions in mental health care delivery aids the success and sustainability of programs.²² Furthermore,

the World Psychiatric Association also provided recommendations regarding how to involve service users and their families to improve mental healthcare delivery.²³ However, service users and their families should be involved only to certain degrees due to some determinants in society--for example, differences in educational background, diversity of mental disorders, age, and decisional capability.²⁴

The final finding worth noting is that we found no evidence of employment opportunities for PWMD in the district. Owing to stigmatization and discrimination, it is becoming increasingly difficult for PWMD to gain employment.²⁵ This is unfortunate, as evidence shows that having a job significantly improves the well-being of PWMD. For instance, one study showed that employed people with severe mental disorders experienced reduced symptoms and hospital admission rates.²⁵ As an integral part of social functioning, having a job also gives patients a productive role to play in society, ultimately enabling them to exercise their rights as citizens.²⁶ Employment also provides financial security, a sense of worth, daily structure, and social engagement.²⁷

Supported employment--specifically, individual placement and support (IPS)--is a proposed mode of employment for PWMD. In IPS, individuals are placed in a competitive employment environment to work immediately with continued support to maintain their employment. IPS has increased the employment rate, particularly regarding competitive employment, among people with mental illnesses.²⁸ However, the successful implementation of IPS correlates with external economic factors, such as a country's GDP and competitiveness in the job market. Therefore, it is less suitable for countries outside the USA, where the method was developed.²⁸ Nevertheless, employing PWMD--though not by IPS--should be considered by stakeholders in north Minahasa to help these individuals recover as they are reintegrated into society.

In conclusion, stakeholders in the district health office of north Minahasa should consider providing mental health care in every mental health care facility. Providing accessible psychiatric care is expected to increase awareness of mental disabilities and prevent human rights violations such as pasung. It is also important to equip doctors and other medical professionals with training on how to diagnose or treat people with mental health issues due to the current lack of psychiatrists in Indonesia. Furthermore, community health centers, the district health office, and centers from other sectors should cooperate to compensate for the low supply of psychotropic medications and the widespread negligence of homeless people with mental illnesses.

CONCLUSION

This study's status as a preliminary study reflects its main limitation, as relatively little data were collected from a

specific area in a single country. However, it is hoped that this study will serve as a database and an incentive for continuing the study to other puskesmas in north Minahasa and, eventually, in other areas as well.

ACKNOWLEDGEMENTS

The authors thank the north Minahasa district health office, especially the Directorate of the Prevention and Control of Non-communicable Diseases, for aiding us in liaising with the stakeholders of each community health center.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Ministry of Health Republic of Indonesia. The Role of Families in Supporting Community Mental Health. Available from: <https://www.kemkes.go.id/article/print/16100700005/peran-keluarga-dukung-kesehatan-jiwa-masyarakat.html>. Accessed on 27 September 2021.
2. Agency of Health Research and Development Ministry of Health Republic of Indonesia. Main Results of Riskesdas 2018. 2019. Available from: <https://www.litbang.kemkes.go.id/hasil-utama-riskesdas-2018/>. Accessed on 27 September 2021.
3. Harimurti P, Prawira J, Hort K. The Republic of Indonesia Health System Review Asia Pacific Observatory on Health Systems and Policies. Health Syst Transit. 2017;7(1).
4. World Health Organization. (2019). Suicide in the world: global health estimates. World Health Organization. Available from: <https://apps.who.int/iris/handle/10665/326948>. Accessed on 27 September 2021.
5. Ministry of Health Republic of Indonesia's Center of Data and Information. Situation and Prevention of Suicide. Jakarta; 2019.
6. Ministry of Health Republic of Indonesia. General guideline of healthy Indonesian program with family approach. Jakarta: Ministry of Health Republic of Indonesia; 2016:8.
7. Saxena S, Lora A, van Ommeren M, Barrett T, Morris J. World Health Organization Assessment Instrument for Mental Health Systems WHO-AIMS version 2.2. 2005. Available from: https://www.who.int/mental_health/evidence/AIMS_WHO_2_2.pdf. Accessed on 27 September 2021.
8. BPS-Statistics of Minahasa Utara. Minahasa Utara in Figures. BPS-Statistics of Minahasa Utara, editor. Minahasa Utara: BPS-Statistics of Minahasa Utara; 2021:3-5.
9. House of Representatives Republic of Indonesia. Keswa Law Number 18 of 2014. House of Representatives Republic of Indonesia; 2014.

10. Saribu EID, Napitupulu RAV. Is there any regulation to protect people with mental disorders in Indonesia? Case study of pasung. *Indones J Int Law*. 2010;7(3):516-34.
11. Ministry of Health Republic of Indonesia's Center of Data and Information. *Disabilitas [Disability]*. Jakarta Selatan; 2019.
12. Human Rights Watch. *Living in hell: abuses against people with psychosocial disabilities in Indonesia*. 2005 by Human Rights Watch. Available from: https://www.hrw.org/sites/default/files/report_pdf/indonesia0316_brochure_web.pdf. Accessed on 18 August 2021.
13. Idaiani S, Riyadi EI. The mental health system in Indonesia: the challenge of meeting needs. *J Res Res Dev Health Serv*. 2018;2(2):70-80.
14. Bandelow B, Michaelis S, Wedekind D. Treatment of anxiety disorders. *Dialogues Clin Neurosci*. 2017;19(2):93-107.
15. Dold M, Li C, Tardy M, Khorsand V, Gillies D, Leucht S. Benzodiazepines for schizophrenia. *Cochrane Database Syst Rev*. 2012;(11).
16. Irmansyah I, Prasetyo YA, Minas H. Human rights of persons with mental illness in Indonesia: more than legislation is needed. *Int J Ment Health Syst*. 2009;3(14):1-10.
17. Rahmah F. Planning and Procurement of Drugs at Puskesmas "X" Based on Minister of Health Regulation Number 74 of 2016. *J Adm Kesehatan Indonesia*. 2018;6(1):15.
18. World Health Organization. *Mental Health Atlas 2017 Country Profile: Indonesia*. 2017 Jan. Available from: <https://www.who.int/publications/m/item/mental-health-atlas-2017-country-profile-indonesia>. Accessed on 18 August 2021.
19. Lora A, Hanna F, Chisholm D. Mental health service availability and delivery at the global level: an analysis by countries' income level from WHO's Mental Health Atlas 2014. *Epidemiol Psychiatr Sci*. 2020;29(2):1-12.
20. Lempp H, Abayneh S, Gurung D, Kola L, Abdulmalik J, Evans-Lacko S, et al. Service user and caregiver involvement in mental health system strengthening in low-and middle-income countries: a cross-country qualitative study. *Epidemiol Psychiatr Sci*. 2018;27(01):29-39.
21. World Health Organization. *Mental Health Action Plan 2013-2020*. Geneva: WHO Document Production Service; 2013:15.
22. Raja S, Underhill C, Shrestha P, Sunder U, Mannarath S, Wood SK, et al. Integrating mental health and development: a case study of the basic needs model in Nepal. *PLOS Med*. 2012;9(7):e1001261.
23. Wallcraft J, Amering M, Freidin J, Davar B, Froggatt D, Jafri H, et al. Partnerships for better mental health worldwide: WPA recommendations on best practices in working with service users and family carers. *World Psychiatr*. 2011;10(3):229-36.
24. Tambuyzer E, Pieters G, Van Audenhove C. Patient involvement in mental health care: One size does not fit all. *Health Expect*. 2014;17(1):138-50.
25. Silván-Ferrero P, Holgado PF, Jiménez J, Pérez-Garín D. Benefits of employment in people with mental illness: differential mediating effects of internalized stigma on self-esteem. *J Community Appl Soc Psychol*. 2021;(May):1-16.
26. Lopez M, Laviana M, Alvarez F, González S, Fernández M, Peláez V, et al. Productive activity and employment of people with severe mental disorder: Some action proposals based on the available information. *Rev la Asoc Española Neuropsiquiatría*. 2004;24(89):31-65.
27. Modini M, Joyce S, Mykletun A, Christensen H, Bryant RA, Mitchell PB, et al. The mental health benefits of employment: Results of a systematic meta-review. *Australas Psychiatr*. 2016;24(4):331-6.
28. Modini M, Tan L, Brinchmann B, Wang MJ, Killackey E, Glozier N, et al. Supported employment for people with severe mental illness: systematic review and meta-analysis of the international evidence. *Br J Psychiatr*. 2016;209(1):14-22.

Cite this article as: Mogi JG, Ratag GAE. An assessment of mental health programs at community health centers in north Minahasa, Indonesia. *Int J Community Med Public Health* 2021;8:5707-13.